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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/547,126	04/11/2000	Fred R. Huege	0438CG-54	4486

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EXAMINER	
BERNATZ, KEVIN M	

ART UNIT	PAPER NUMBER
1773	19

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Please find below and/or attached an Office communication concerning this application or proceeding.

A 8-12

Office Action Summary	Application No. 09/547,126	Applicant(s) HUEGE ET AL.	
	Examiner Kevin M Bernatz	Art Unit 1773	

-- The MAILING DATE of this c mmunication appears on the cover sheet with the corresp ndence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disp sition of Claims

4)☒ Claim(s) *1,4,8-10 and 12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,8-10 and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Response to Amendment

1. Amendments to claims 1, 3, 5 – 7 and 11 - 21, filed on July 11, 2003, have been entered in the above-identified application.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Continued Prosecution Application

3. The request filed on July 11, 2003 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) is acceptable and a CPA has been established. An action on the CPA follows.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1 and 12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The examiner reminds the applicant(s) that

any negative limitation or exclusionary proviso must have basis in the original disclosure. See *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), *aff'd mem.*, 738 F.2d 453 (Fed. Cir. 1984). **The mere absence of a positive recitation is not basis for an exclusion** (see MPEP § 2173.05(i)). In the instant case, the limitation "non-polymeric" is a negative limitation which does not have an ***explicit positive recitation*** in the as-filed disclosure.

Claim Rejections - 35 USC § 103

6. Claims 1, 4, 8 – 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over George et al. ('573) in view of Karácsonyi née Éva Spindler et al. [hereafter this patent will be referred to as "Karácsonyi et al"] ('410), applicants' admissions and Hansen ('680).

Regarding claims 1, 4 and 12, George et al. disclose an asphalt roofing structure, comprising: a substrate form selected from the group consisting of roll roofing and shingle substrates (*col. 1, lines 10 – 11*), an asphalt composition applied to the substrate form, the asphalt composition consisting essentially of a mixture of a non-polymeric asphaltic base (*Figure 3, element 61*), glass matte (*Figure 3, element 60*) and filler (*col. 2, lines 41 – 44; col. 2, line 65 bridging col. 3, line 7; col. 5, lines 5 – 45; and col. 9, lines 20 - 32*).

With regard to the transitional phrase "consisting essentially of", the examiner reminds applicants that "[t]he transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that do not materially

affect the basic and novel characteristic(s)" of the claimed invention. *In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976) (emphasis in original)" (MPEP § 2111.03). The MPEP explicitly states "[f]or search and examination purposes, absent a clear indication in the specification of what the basic and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising.".

In the instant case, the basic and novel characteristics of applicants' claimed invention is improved bonding characteristics between the asphaltic base and the aggregate/filler, glass matte or other substrates, as well as improved tear strength of the entire product (*specification, pages 8 – 9*).

The MPEP further states "[w]hen an applicant contends that additional steps or materials in the prior art are excluded by the recitation of "consisting essentially of," applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention". In the court case cited in the MPEP, it should be noted the court's finding that "the court noted that appellants' specification indicated the claimed composition can contain any well-known additive such as a dispersant, and there was no evidence that the presence of a dispersant would materially affect the basic and novel characteristic of the claimed invention. ***The prior art composition had the same basic and novel characteristic (increased oxidation resistance) as well as additional enhanced detergent and dispersant characteristics***" [emphasis added] MPEP § 2111.03.

In the instant case, George et al. disclose an asphalt/substrate material consisting essentially of the same components as claimed by applicants, namely an

asphaltic material impregnating a glass matte, including dolomite limestone filler (*Figure 3 and col. 5, lines 6 – 45*).

George et al. fail to disclose the asphalt composition including "an amount of hydrated lime sufficient to improve tear strength and durability properties of the asphalt structure, the hydrated lime being present in the range between 1-10% by weight of the asphalt composition, the hydrated lime comprising an alkaline earth metal hydroxide selected from the group consisting of $Ca(OH)_2$, $Mg(OH)_2$, and $Ca(OH)_2$:$Mg(OH)_2$" (*claim 1*), nor an asphalt composition including water and an alkaline earth metal hydroxide formed from reacting an alkaline earth metal oxide with said water (*claim 12*).

However, Karácsonyi et al. teach an aqueous asphalt composition for use in roofs (*Title and col. 1, lines 13 - 16*) which comprises an alkaline earth metal hydroxide, an asphalt and a filler (*col. 1, line 60 bridging col. 2, line 43; Examples; and claims 1 and 5*). Further, Karácsonyi et al. disclose that the improved asphaltic composition has good insulating and bonding properties, as well as excellent water resistance (*col. 2, line 68 bridging col. 3, line 7 and col. 4, lines 43 – 44*). Regarding the exact weight percent of hydrated lime, Karácsonyi et al. teach that the amount of alkaline earth metal hydroxide can be varied to effect the mechanical/flow properties of the bitumen (*col. 2, lines 5 – 15 and 30 – 36; Examples and claim 5*).

It would therefore have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the device of George et al. by adding an alkaline earth metal hydroxide to the asphaltic composition as taught by Karácsonyi et al. since

it leads to good insulating and bonding properties, as well as excellent water resistance. In addition, the Examiner deems that it would have been obvious to one having ordinary skill in the art to have determined an amount of alkaline earth metal hydroxide/hydrated lime meeting applicants' claimed weight percent limitation by optimizing the results effective variable through routine experimentation, especially given the amounts of metal hydroxide desired by Karácsonyi et al. above. *In re Boesch*, 205 USPQ 215 (CCPA 1980); *In re Geisler*, 116 F. 3d 1465, 43 USPQ2d 1362, 1365 (Fed. Cir. 1997); *In re Aller*, 220 F.2d, 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Regarding the limitation "the hydrated lime comprising an alkaline earth metal hydroxide selected from the group consisting of $Ca(OH)_2$, $Mg(OH)_2$, and $Ca(OH)_2$:$Mg(OH)_2$", the examiner deems that hydrated lime is necessarily an alkaline earth metal hydroxide selected from the group consisting of $Ca(OH)_2$, $Mg(OH)_2$, and $Ca(OH)_2$:$Mg(OH)_2$, since applicants' admit that the term "hydrated lime" is known to refer to such compositions (*see applicants' specification, page 8, lines 5 - 6*). See also Karácsonyi et al. Examples 1 and 4, which disclose $Ca(OH)_2$, $Mg(OH)_2$, and "hydrated lime" as equivalent terms (*col. 2, lines 24 – 30; col. 3, lines 20 – 21 and 33 – 35 and col. 4, lines 14 – 15*).

Regarding the limitation "sufficient to improve tear strength and durability", this limitation is a functional limitation and is not further limiting in so far as the structure of the product is concerned. In the instant case, the above functional limitation is deemed to be necessarily present in prior art since the prior art is substantially identical in composition and/or structure. The examiner's sound basis for this assertion is that the

prior art discloses adding a similar amount of hydrated lime as disclosed by applicants (*see Karácsonyi et al. examples*) and the Examiner deems that any addition of hydrated lime will result in *some* improvement in tear strength and durability based on applicants' as-filed disclosure.

Regarding the limitations "heated" (*claims 1 and 12*) and "the hydrated lime being formed by the addition ... reacting with water in the filler" (*claim 12*), these limitations are product-by-process limitations and are not further limiting in so far as the structure of the product is concerned. In the instant case, whether the water comes from the filler, other ingredients or is added separately is not deemed to change the fact that the alkaline earth metal oxide will react with it to form an alkaline earth metal hydroxide (i.e. "hydrated lime"). The prior art product disclose adding hydrated lime (i.e. the alkaline earth metal hydroxide) directly and there is presently no evidence of record that adding hydrated lime directly versus hydrating the lime *in-situ* would result in a patentability distinct product.

Neither Karácsonyi et al. nor George et al. disclose adding a filler meeting applicants' claimed material and percent by weight limitations.

However, applicants admit that the claimed filler material and weight percents are old in the art for fillers added to asphalt compositions for use in shingles and roll roofing (*page 3, line 26 bridging page 4, line 19*) and the appropriate choice of filler depends on the cost, compatibility with the asphalt, and aesthetic quality desired in the shingles. Furthermore, Hansen teaches that the amount of filler can be varied to effect the flow

and penetration properties in a roofing shingle asphalt (*col. 3, lines 10 – 13; col. 3, line 66 bridging col. 4, line 5; and Table 1*).

It would therefore have been obvious to one of ordinary skill in the art at the time of the applicants' invention to modify the device of George et al. in view of Karácsonyi et al. to use fillers meeting applicants' material and weight percent limitations as admitted by applicants and taught by Hansen, since it would have been obvious to one having ordinary skill in the art to determine an amount of filler added by optimizing the results effective variable through routine experimentation and the claimed filler material is a known filler used in shingles and roll roofing, which can be selected depending on the cost, compatibility with the asphalt and desired aesthetics.

Regarding claims 8 – 10, these limitations are product-by-process limitations and are not further limiting in so far as the structure of the article is concerned for the reasons cited above.

7. Claims 1, 8 – 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over George et al. ('573) in view of applicants' admissions, Hansen ('680) and either Little et al. ('558) or Little et al. (WO '620). Since both Little et al. references disclose identical subject matter, the examiner will cite page + line numbers only in the WO '620 reference to avoid confusion. Appropriate sections of US '558 have also been underlined for applicants convenience.

Regarding claims 1 and 12, George et al. disclose an asphalt roofing structure, comprising: a substrate form selected from the group consisting of roll roofing and

shingle substrates (*col. 1, lines 10 – 11*), an asphalt composition applied to the substrate form, the asphalt composition consisting essentially of a mixture of a non-polymeric asphaltic base (*Figure 3, element 61*), glass matte (*Figure 3, element 60*) and filler (*col. 2, lines 41 – 44; col. 2, line 65 bridging col. 3, line 7; col. 5, lines 5 – 45; and col. 9, lines 20 - 32*).

With regard to the transitional phrase "consisting essentially of", George et al. disclose an asphalt/substrate material consisting essentially of the same components as claimed by applicants, namely an asphaltic material impregnating a glass matte, including dolomite limestone filler (*Figure 3 and col. 5, lines 6 – 45*).

George et al. fail to disclose the asphalt composition including "an amount of hydrated lime sufficient to improve tear strength and durability properties of the asphalt structure, the hydrated lime being present in the range between 1-10% by weight of the asphalt composition, the hydrated lime comprising an alkaline earth metal hydroxide selected from the group consisting of $Ca(OH)_2$, $Mg(OH)_2$, and $Ca(OH)_2$:$Mg(OH)_2$" (*claim 1*), nor an asphalt composition including water and an alkaline earth metal hydroxide formed from reacting an alkaline earth metal oxide with said water (*claim 12*).

However, Little et al. teach adding hydrated lime comprising an alkaline earth metal hydroxide in an amount reading on applicants' claimed weight percent limitation (*page 2, lines 3 – 6 "about 10%" reads on between 1 – 10%*) to an asphalt composition comprising an asphaltic base and a filler (*page 3, lines 17 – 31 and claim 1*) to form an asphaltic material which possesses good anti-stripping properties, moisture resistance,

inhibited age hardening and improved toughness, as well as improving the bonding between the filler and bitumen (*page 2, lines 15 – 24 and page 3, lines 26 - 31*).

It would therefore have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the device of George et al. to add hydrated lime meeting applicants' claimed material and weight percent limitations as taught by Little et al. since it leads to good anti-stripping properties, moisture resistance, inhibited age hardening and improved toughness, as well as improving the bonding between the filler and bitumen.

Regarding the limitation "sufficient to improve tear strength and durability", this limitation is a functional limitation and is not further limiting in so far as the structure of the product is concerned. In the instant case, the above functional limitation is deemed to be necessarily present in prior art since the prior art is substantially identical in composition and/or structure. The examiner's sound basis for this assertion is that the prior art discloses amounts of hydrated lime reading on applicants' claimed weight percent limitations and that the addition of hydrated lime leads to improved bonding characteristics.

Regarding the limitations "heated" (*claims 1 and 12*) and "the hydrated lime being formed by the addition ... reacting with water in the filler" (*claim 12*), these limitations are product-by-process limitations and are not further limiting in so far as the structure of the product is concerned for the reasons cited above.

Neither Little et al. nor George et al. disclose adding a filler meeting applicants' claimed material and percent by weight limitations.

However, applicants admit that the claimed filler material and weight percents are old in the art for fillers added to asphalt compositions for use in shingles and roll roofing (*page 3, line 26 bridging page 4, line 19*) and the appropriate choice of filler depends on the cost, compatibility with the asphalt, and aesthetic quality desired in the shingles. Furthermore, Hansen teaches that the amount of filler can be varied to effect the flow and penetration properties in a roofing shingle asphalt (*col. 3, lines 10 – 13; col. 3, line 66 bridging col. 4, line 5; and Table 1*).

It would therefore have been obvious to one of ordinary skill in the art at the time of the applicants' invention to modify the device of George et al. in view of Little et al. to use fillers meeting applicants' material and weight percent limitations as admitted by applicants and taught by Hansen, since it would have been obvious to one having ordinary skill in the art to determine an amount of filler added by optimizing the results effective variable through routine experimentation and the claimed filler material is a known filler used in shingles and roll roofing, which can be selected depending on the cost, compatibility with the asphalt and desired aesthetics.

Regarding claims 8 – 10, these limitations are product-by-process limitations and are not further limiting in so far as the structure of the article is concerned for the reasons cited above.

Response to Arguments

8. The rejection of claims 1, 3 – 12 and 14 - 21 under 35 U.S.C § 103(a) – George et al. in view of Anthenien et al. and applicants' admissions

The above noted rejection has been withdrawn because applicant(s) amendment(s) have set forth new limitations (e.g. "non-polymeric") no longer anticipated, nor rendered obvious, by the above noted rejection. Specifically, Anthenien et al. only teach using hydrated lime with a polymeric component as well.

9. The rejection of claims 1, 3 – 12 and 14 - 21 under 35 U.S.C § 103(a) – George et al. in view of Karácsonyi et al. and applicants' admissions

The rejection of claims 1, 3, 5 – 12 and 14 - 21 under 35 U.S.C § 103(a) – George et al. in view of Little et al. alone or with applicants' admissions

Applicants arguments have been considered, but are moot in view of the new grounds of rejection above. In so far as they apply to the present rejections of record, applicant(s) argue(s) that Karácsonyi et al. and the Little et al. references are non analogous art since neither are directed towards roofing shingles nor do they discuss tear strength or how to improve it. The Examiner respectfully disagrees.

An invention may be obvious if the prior art has different reasons for doing what the applicant has done. "It has long been held that a rejection under 35 USC 103 based upon a combination of references is not deficient solely because the references are combined based upon a reason or technical consideration which is different from that which resulted in the claimed invention." *Ex parte Raychem Corp.* 17 USPQ 2d 1417,

1424 (BPAI 1990). Cites *In re Kronig* 190 USPQ 425 (CCPA 1976); *In re Gershon* 152 USPQ 602 (CCPA 1967). In the instant case, both Karácsonyi et al. and the Little et al. references provide motivation for adding hydrated lime to a bitumen material used in the roofing industry. Therefore, the Examiner deems that one of ordinary skill in the art would recognize that the art is analogous, i.e. improving bitumen properties by the addition of hydrated lime.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M Bernatz whose telephone number is (703) 308-1737. The examiner can normally be reached on M-F, 9:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on (703) 308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

Kevin M. Bernatz
Patent Examiner

September 7, 2003